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ABSTRACT

In a 1973 study Morgan and Mausner administered the second half of the Hidden Figures Test to pairs of high school students who had scored in either the upper or lower quartile on the first half of the test. High-scoring females showed a significant tendency to lower their scores when working with a low-scoring male partner. This tendency was not found for males paired with females. Since this study did not include comparable data for pairs of the same sex, the present study attempted to correct this deficiency and to explore additional personality factors influencing pair performance in both sexes. The sample of 48 subjects consisted of equal numbers of high and low scoring males and females selected from 169 Saratoga Springs High School seniors who had taken the first half of the Hidden Figures Test. After paired testing on the second half of the Hidden Figures Test, each subject responded to the Eysenck Personality Inventory and the Sex Role Identification Test. While the lowest relative performance was turned in by females paired with male partners, the highest relative performance was achieved by females paired with females. Personality and sex role interaction effects are reported. (Author/JL)

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Why do women perform better with women than with men?

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(paper presented at APA convention, August 1977)

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Previous evidence linking sex and personality differences to performance in partnerships has shown that college women with high fear of success perform better when competing with another woman than when competing with a man, whereas women with low fear of success perform better when competing with a man (Parker, 1972). In a study closely related to the present one, Morgan & Mausner (1973) administered the second half of the Hidden Figures Test (Messick, 1962) to pairs of high school students who had scored in either the upper or lower quartile on the first half of the test. High-scoring (field-independent) females showed a significant tendency to lower their scores when working with a low-scoring (field-dependent) male partner. This tendency was not found for males paired with females and was less apparent among females whose fathers were highly educated. Since Morgan & Mausner did not include comparable data for pairs of the same sex, the present study attempted to correct this deficiency and to explore additional personality factors influencing pair performance in both sexes.

Subjects:

An experimental sample of forty-eight subjects consisted of equal numbers of field-independent and field-dependent males and females selected from one hundred sixty-nine Saratoga Springs High School seniors who had taken the first half of the Hidden Figures Test.

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Procedure:

Two weeks after taking the first half of the Hidden Figures Test, twelve males and twelve females who had scored in the top thirty percent of those taking the test were each paired with a partner of the same or opposite sex who had scored in the bottom thirty percent on the test. Prior to taking the second half of the Hidden Figures Test, each subject was informed of his or her score on the first half of the test and was asked not to divulge this information to his or her partner. As members of each pair were seated at a table oppposite each other, they were given different colored pens to distinguish their work and were instructed to work jointly with their partner on the second half of the HFT, helping each other in any way they deemed appropriate. After ten minutes of paired testing and prior to debriefing and dismissal, each individual responded to the Eysenck Personality Inventory (Form B, Educational and Industrial Testing Service, 1963) and the Sex-Role Identification Test (Rychlak & Legerski, 1967).

Results:

The relative pair performance of each individual was calculated by subtracting the score on the first half of the Hidden Figures Test from the score obtained when working with a partner on the second half of the test. These scores were then subjected to a 2x2x2 analysis of variance (male vs. female, high vs. low initial score, and same vs. opposite sex partnership).

In general, the performance of initially high-scoring (field-independent) subjects deteriorated significantly compared to initially low-scoring (field-dependent) subjects ($\bar{X}_{high} = -2.44$ vs. $\bar{X}_{low} = +1.08$, $F_{1,40} = 35.59$, $p < .001$), suggesting a regression toward the mean on the second half of the Hidden Figures Test. Also significant, however, was the interaction between Sex and Partnership

in determining relative pair performance ($F_{1,40} = 4.87$, $p = .03$). Comparisons among the subgroup means for this effect (see Figure 1) indicated that the performance of both high and low-scoring females deteriorated more with male partners than with female partners. While the lowest relative performance was turned in by females paired with male partners, the high relative performance was achieved by females paired with females.

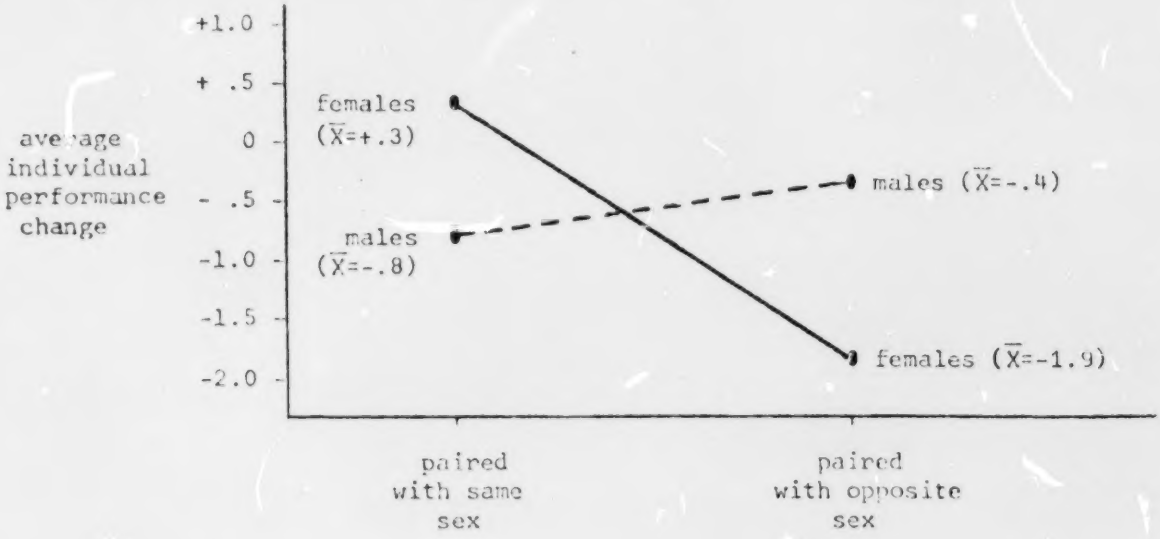

Figure 1. Performance change means for sex and partnership subgroups.

Relationships between personality test scores and relative pair performance were analyzed by treating each personality dimension as a dependent variable in a four-way analysis of variance (see McNemar, 1969, p. 444). Relative pair performance, treated as the fourth factor, was classified as "high" or "low" depending on whether the individual's performance change score when working with a partner was in the top or bottom half of its subgroup distribution.

Analysis of Extraversion raw scores yielded a significant interaction between Initial Score, Partnership, and Relative Pair Performance ($F_{1,32} = 5.31$, $p = .0265$). Comparisons among the subgroup means shown in Figure 2 indicated

that the relative pair performance of initially high-scoring (field-independent) subjects in same-sex partnerships was better if they were less extraverted whereas the performance of initially low-scoring (field-dependent) subjects was better if they were more extraverted. In opposite-sex partnerships, these relationships were reversed.

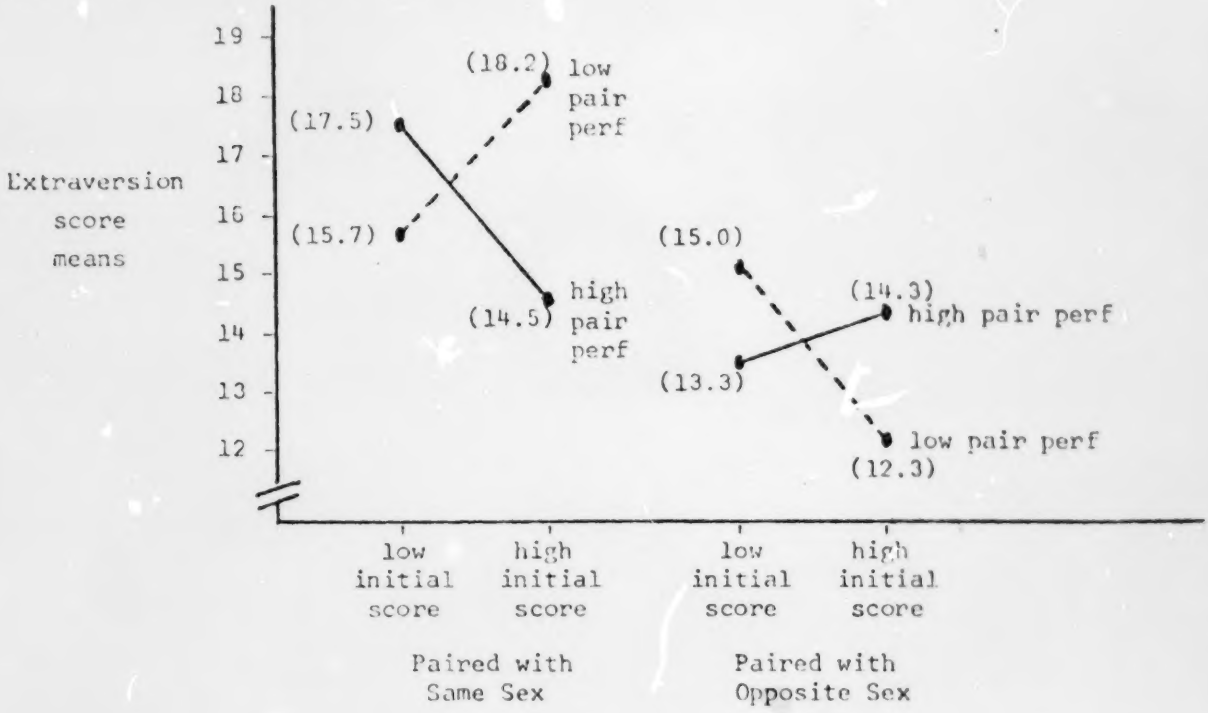

Figure 2. Extraversion means for initial score, partnership, and relative pair performance subgroups.

Although no significant differences were found on the Eysenck Neuroticism dimension, analysis of Lie Scale scores produced a significant interaction between Initial Score, Partnership, and Relative Pair Performance ($p = .0232$). Comparisons among the subgroup means indicated differences which corresponded closely with those found for Extraversion, but in precisely opposite relationships. That is, subjects with low Lie scores behaved like more extraverted subjects, at least with respect to interaction effects involving Initial Score, Partnership, and Relative Pair Performance.

Results for scores on the Sex-Role Identification Test were analyzed separately for each of the four sex-role patterns (masculine-ascendant-dominant, feminine-ascendant-dominant, masculine-retiring-passive, and feminine-retiring-passive). Only the masculine-ascendant-dominant and the feminine-retiring-passive patterns yielded significant interactions with pair performance. For both these patterns, the four-way interaction between Sex, Initial Score, Partnership, and Relative Pair Performance was significant at the five percent level. Since these two patterns tended to produce precisely opposite effects, they are described together and illustrated for the feminine-retiring-passive pattern only (see Figure 3). Among initially high-scoring subjects, high feminine-retiring-passive boys and girls (low masculine-ascendant-dominant) tended to perform better with female partners than with male partners and low feminine-retiring-passive boys and girls (high masculine-ascendant-dominant) tended to perform better with male partners than with female partners. These relationships tended to be reversed among initially low-scoring subjects, especially for the masculine-ascendant-dominant pattern.

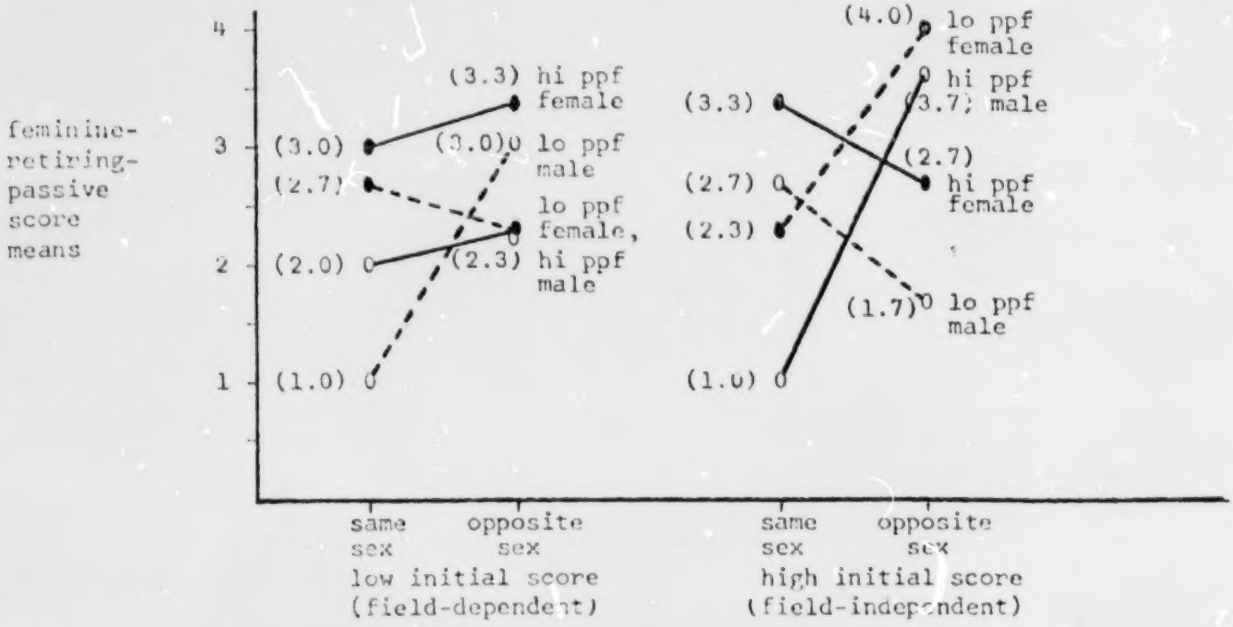

Figure 3. Feminine-retiring-passive group means for initial score, partnership, sex, and relative pair performance.

Conclusions:

Findings from the present study lend support to previous evidence showing relatively poorer female performance with male partners than with female partners on certain tasks (Parker, 1972; Morgan & Mausner, 1973). Contrary to the results of Morgan & Mausner, however, this tendency was found for both initially high-scoring (field-independent) and initially low-scoring (field-dependent) females.

Analysis of the personality correlates of pair performance in the present study revealed the existence of significant interaction effects involving introversion-extraversion and aspects of sex-role identification for both sexes. When viewed as a whole, these results seem to indicate that the performance of high-ability (field-independent) subjects working with low-ability (field-dependent) partners of the opposite sex was facilitated when those subjects were more extraverted and more role-oriented toward the opposite sex. These relationships tended to be reversed for high-ability subjects working with low-ability partners of the same sex and for low-ability subjects working with high-ability partners of the opposite sex. As to why women, but not men, performed better with their own sex than with the opposite sex, the data suggest that high-ability subjects of both sexes tended to be more feminine-retiring-passive than low-ability subjects and that this association inhibited the performance of women in opposite sex partnerships.

References:

McNemar, Quinn Psychological statistics, 4th edition. New York: Wiley, 1969.

Messick, S. The hidden figures test. Princeton: Educational Testing Service, 1962.

Morgan, Sherry, and Mausner, Bernard Behavioral and fantasied indicators of avoidance of success in men and women. Journal of Personality, 1973, 41, 457-470.

Parker, Vivian J. Fear of success, sex-role orientation of the task, and competitive condition as variables affecting women's performance in achievement-oriented situations. Dissertation Abstracts International, 1972, 32, 5495B.

Rychlak, J. F., and Legerski, A. T. A sociocultural theory of appropriate sexual role identification and level of personality adjustment. Journal of Personality, 1967, 35, 31-49.